

## Author Index to Volume 60

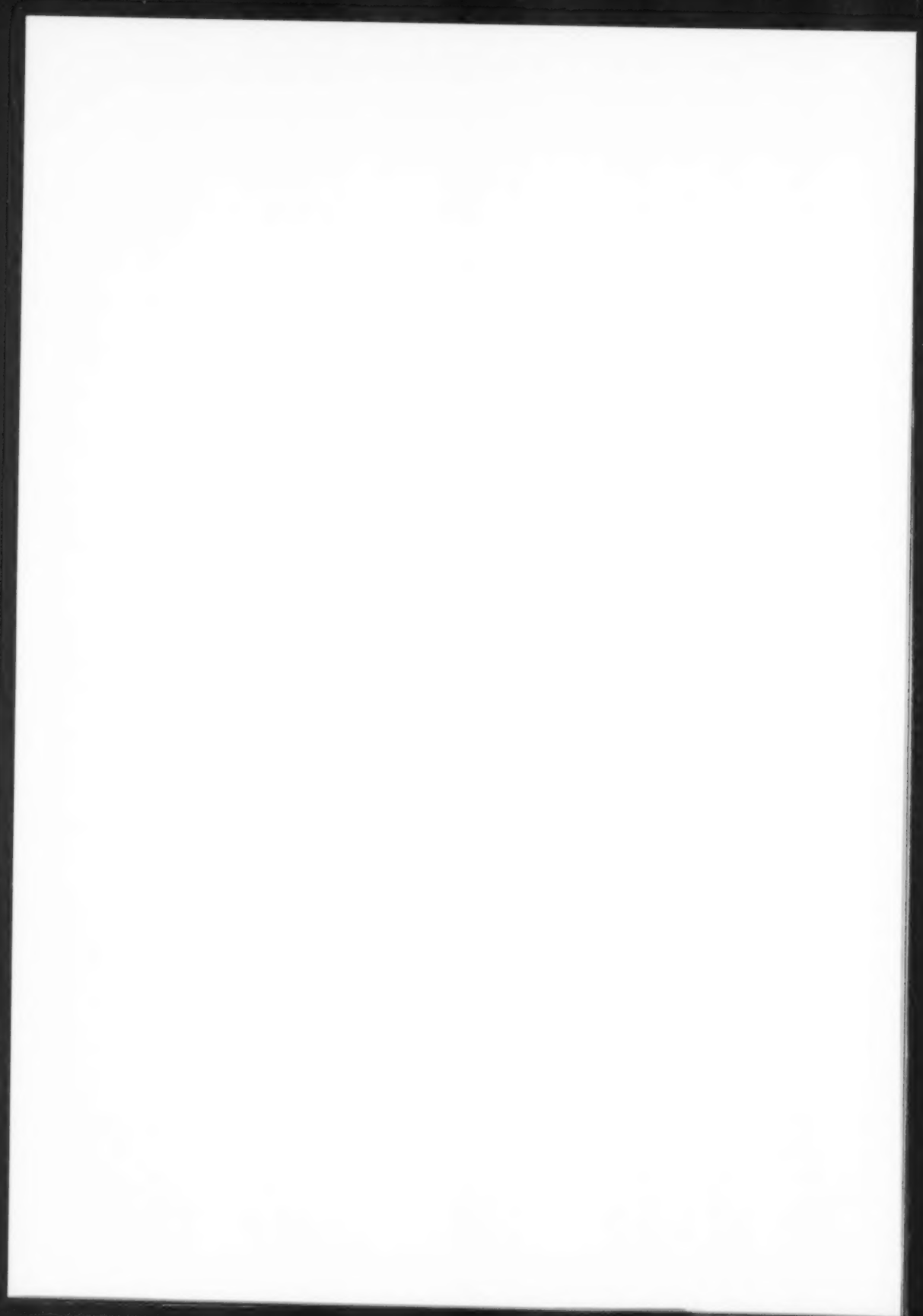
- |  |               |
|--|---------------|
| Ahmad, A., see P.G. Komorowski   | 60 (1993) 335 |
| Ahmad, A., see P.G. Komorowski   | 60 (1993) 343 |
| Albinsson, I., B.-E. Mellander and J.R. Stevens, Ion association effects and ionic conductivity in polymer electrolytes                                      | 60 (1993) 63  |
| Alloin, F., J.-Y. Sanchez and M. Armand, Triblock copolymers and networks incorporating oligo (oxyethylene) chains   | 60 (1993) 3   |
| Amatucci, G.G., A. Safari, F.K. Shokoohi and B.J. Wilkens, Lithium scandium phosphate-based electrolytes for solid state lithium rechargeable microbatteries | 60 (1993) 357 |
| Argyropoulos, S.A., see P.G. Komorowski  | 60 (1993) 335 |
| Argyropoulos, S.A., see P.G. Komorowski  | 60 (1993) 343 |
| Armand, M., see F. Alloin  | 60 (1993) 3   |
| Armand, M., see S. Atchia  | 60 (1993) 79  |
| Armand, M., see D. Benrabah  | 60 (1993) 87  |
| Armand, M., see A.L. De Oliveira   | 60 (1993) 99  |
| Atchia, S., D. Deroo, J.P. Petit, M. Armand and N. Rosman, Stability of thin layer electrodeposited copper in solid polymer electrolyte                      | 60 (1993) 79  |
| Azzoni, C.B., P. Camagni, G. Samoggia and A. Paleari, Defect structures and electronic properties in cubic stabilized zirconia                               | 60 (1993) 223 |
| Barbero, C., M.C. Miras, R. Kötzt and O. Haas, Probe beam deflection: a useful tool for the study of ion transport in polymers                               | 60 (1993) 167 |
| Batty, S.V., see J.P. Voss   | 60 (1993) 93  |
| Benrabah, D., J.-Y. Sanchez and M. Armand, Synthesis and electrochemical characterization of a new family of lithium salts                                   | 60 (1993) 87  |
| Bernson, A. and J. Lindgren, Ion aggregation and morphology for poly(ethylene oxide)-based polymer electrolytes containing rare earth metal salts            | 60 (1993) 31  |
| Bernson, A. and J. Lindgren, Free ions and ion pairing/clustering in the system $\text{LiCF}_3\text{SO}_3\text{-PPO}_n$                                      | 60 (1993) 37  |
| Blumenthal, R.N., see M.A. Panhans   | 60 (1993) 279 |
| Boguslavsky, L., P.D. Hale, L. Geng, T.A. Skotheim and H.-S. Lee, Applications of redox polymers in biosensors   | 60 (1993) 189 |
| Camagni, P., see C.B. Azzoni   | 60 (1993) 223 |
| Canaday, J.D., see P.G. Komorowski   | 60 (1993) 335 |
| Canaday, J.D., see P.G. Komorowski   | 60 (1993) 343 |
| Careem, M.A., see K. West  | 60 (1993) 153 |
| Chen, L. and J. Schoonman, $\text{MnO}$ thin film cathode for rechargeable microbatteries  | 60 (1993) 227 |
| Chen, R.S., see M.G. McLin   | 60 (1993) 137 |
| Dąbrowska, A., see J. Przyluski  | 60 (1993) 141 |
| Damasceno, O. de O., see A.L. de Oliveira  | 60 (1993) 99  |

- Da Silva, C.J., see G. Petersen 60 (1993) 55  
 De Jonghe, L.C., see S.J. Visco 60 (1993) 175  
 De Oliveira, A.L., O. de O. Damasceno, P.R. Silva, C.L. Sangiorgio, M. Armand and M. Kleitz, Specific conductivity of lithium perchlorate dissolved in poly(ethylene glycol-400) distereate 60 (1993) 99  
 Deroo, D., see S. Atchia 60 (1993) 79  
 Despotuli, A.L. and V.I. Nikolaichik, A step towards nanoionics 60 (1993) 275  
 Doeff, M.M., see S.J. Visco 60 (1993) 175  
  
 Farrington, G.C., see L. Xie 60 (1993) 19  
 Fontanella, J.J., see Y. Okamoto 60 (1993) 131  
 Fontanella, J.J., see M.G. McLin 60 (1993) 137  
 Fujita, T., see R. Tanaka 60 (1993) 119  
  
 Geng, L., see L. Boguslavsky 60 (1993) 189  
 Ghoneimy, H.F., see N.Z. Misak 60 (1993) 305  
 Ghosh, S. and V. Kalpagam, Protonation of polyaniline and its polyelectrolyte complexes at different ionic strength: contribution of Donnan effect 60 (1993) 149  
 Gottesfeld, S., see T.A. Zawodzinski Jr. 60 (1993) 199  
 Granqvist, C.G., Electrochromics and smart windows 60 (1993) 213  
 Graydon, J., see P.G. Komorowski 60 (1993) 335  
 Greenbaum, S.G., see Y. Okamoto 60 (1993) 131  
 Greenbaum, S.G., see M.G. McLin 60 (1993) 137  
  
 Haas, O., see C. Barbero 60 (1993) 167  
 Hale, P.D., see L. Boguslavsky 60 (1993) 189  
 Hanic, F., see P. Znášik 60 (1993) 313  
 Hinduliaková, I., see P. Znášik 60 (1993) 313  
 Hochi, K., see Y. Takebe 60 (1993) 125  
  
 Inganäs, O., see Q. Pei 60 (1993) 161  
 Ivanov, E., K. Suzuki, K. Sumiyama, S.A. Makhlof and H. Yamauchi, Formation of new metastable transition metal alloys by combination of mechanical alloying and chemical leaching 60 (1993) 299  
  
 Jacobsson, P., see A. Lundin 60 (1993) 43  
 Jayakody, J.P., see M.G. McLin 60 (1993) 137  
  
 Kalpagam, V., see S. Ghosh 60 (1993) 149  
 Kleitz, M., see A.L. de Oliveira 60 (1993) 99  
 Komorowski, P.G., S.A. Argyropoulos, J. Graydon, J.D. Canaday, A.K. Kuriakose, T.A. Wheat, A. Ahmad and P. Taylor, The effect of absorbed water on hydronium NASICON and Hyceram 60 (1993) 335  
 Komorowski, P.G., S.A. Argyropoulos, J.D. Canaday, A.K. Kuriakose, T.A. Wheat and A. Ahmad, The analysis of protonically exchanged  $\beta$ "-alumina powder 60 (1993) 343  
 Kötzt, R., see C. Barbero 60 (1993) 167  
 Kuriakose, A.K., see P.G. Komorowski 60 (1993) 335

- Kuriakose, A.K., see P.G. Komorowski 60 (1993) 343
- Lampert, C., see S.J. Visco 60 (1993) 175
- Latham, R.J., R.G. Linford and R.A.J. Pynenburg, The effect of microwave drying on polymer electrolyte conductivity 60 (1993) 105
- Lee, H.-S., see L. Boguslavsky 60 (1993) 189
- Lindgren, J., see A. Bernson 60 (1993) 31
- Lindgren, J., see A. Bernson 60 (1993) 37
- Linford, R.G., see R.J. Latham 60 (1993) 105
- Liu, M., see S.J. Visco 60 (1993) 175
- Liu, Q., see X. Qiu 60 (1993) 351
- Lundin, A. and P. Jacobsson, Effect of high pressure on volume and ion-ion interaction in poly(propylene glycol) complexed with  $\text{LiCF}_3\text{SO}_3$  60 (1993) 43
- Ma, Y.P., see S.J. Visco 60 (1993) 175
- Macdonald, J.R. and J.C. Wang, The response of systems with exponential distributions of activation energies for two classes of material temperature behavior 60 (1993) 319
- Majling, J., see P. Znášik 60 (1993) 313
- Makhlouf, S.A., see E. Ivanov 60 (1993) 299
- Mani, R., see T. Mani 60 (1993) 113
- Mani, T., R. Mani and J.R. Stevens, The physical characteristics of PPG/PMMA/ $\text{LiCF}_3\text{SO}_3$  polymer electrolyte blends including morphology 60 (1993) 113
- McLin, M.G., see Y. Okamoto 60 (1993) 131
- McLin, M.G., M.C. Wintersgill, J.J. Fontanella, R.S. Chen, J.P. Jayakody and S.G. Greenbaum, High pressure studies of hydrated NAFION membranes: Dielectric relaxation and deuteron NMR 60 (1993) 137
- Mellander, B.-E., see I. Albinsson 60 (1993) 63
- Mikhail, E.M., see N.Z. Misak 60 (1993) 305
- Miras, M.C., see C. Barbero 60 (1993) 167
- Misak, N.Z., H.F. Ghoneimy and E.M. Mikhail, Interdiffusion in alkali ion sorption from mixed solvent solutions on hydrous stannic oxide. III.  $\text{K}^+/\text{H}^+$  exchange and general discussion 60 (1993) 305
- Nikolaichik, V.I., see A.L. Despotuli 60 (1993) 275
- Nishibayashi, H., see R. Tanaka 60 (1993) 119
- Okamoto, Y., Z.S. Xu, M.G. McLin, J.J. Fontanella, Y.S. Pak and S.G. Greenbaum, Synthesis and properties of a cation-conducting, high temperature polymer electrolyte 60 (1993) 131
- Pak, Y.S., see Y. Okamoto 60 (1993) 131
- Pak, Y.S. and G. Xu, Proton transference number of PFSA ionomer membranes 60 (1993) 347
- Paleari, A., see C.B. Azzoni 60 (1993) 223
- Panero, S., see G. Petersen 60 (1993) 55
- Panhans, M.A. and R.N. Blumenthal, A thermodynamic and electrical conductivity study of nonstoichiometric cerium dioxide 60 (1993) 279
- Patel, J.P., see J.P. Voss 60 (1993) 93
- Pei, Q. and O. Inganäs, Electrochemical applications of the bending beam method; a novel way to study ion transport in electroactive polymers 60 (1993) 161

- Petersen, G., L.M. Torell, S. Panero, B. Scrosati, C.J. da Silva and M. Smith, Ionic interactions in  $\text{MCF}_3\text{SO}_3$ -polyether complexes containing mono-, di- and trivalent cations 60 (1993) 55  
 Petit, J.P., see S. Atchia 60 (1993) 79  
 Przyłuski, J., A. Dąbrowska, S. Stys and W. Wiczonek, Ambient temperature proton polymeric electrolytes based on poly(ethylene oxide)-poly(methyl methacrylate) blends 60 (1993) 141  
 Pynenburg, R.A.J., see R.J. Latham 60 (1993) 105
- Qiu, X., Q. Liu and L. Yang, The processes of lithium ions intercalating into benzene pyrolytic decomposition carbon 60 (1993) 351
- Rosman, N., see S. Atchia 60 (1993) 79
- Safari, A., see G.G. Amatucci 60 (1993) 357
- Saito, M. and S. Tamaki, Disordered distribution of cations in the solid solution of the AgBr-CuBr system 60 (1993) 237  
 Saito, S., see R. Tanaka 60 (1993) 119  
 Samoggia, G., see C.B. Azzoni 60 (1993) 223  
 Sanchez, J.-Y., see F. Alloin 60 (1993) 3  
 Sanchez, J.-Y., see D. Benrabah 60 (1993) 87  
 Sangiorge, C.L., see A.L. de Oliveira 60 (1993) 99  
 Schantz, S. and L.M. Torell, Evidence of dissolved ions and ion pairs in dilute poly(propylene oxide)-salt solutions 60 (1993) 47  
 Schoonman, J., see L. Chen 60 (1993) 227  
 Scrosati, B., see G. Petersen 60 (1993) 55  
 Secco, E.A., Paddle-wheel versus percolation model 60 (1993) 233  
 Shi, J. and C.A. Vincent, The effect of molecular weight on cation mobility in polymer electrolytes 60 (1993) 11  
 Shiota, Y., see Y. Takebe 60 (1993) 125  
 Shokoohi, F.K., see G.G. Amatucci 60 (1993) 357  
 Siekierski, M. and W. Wiczonek, Application of the "universal power law" to the studies of ac conductivity of polymeric electrolytes 60 (1993) 67  
 Silva, C.J., see M.J. Smith 60 (1993) 73  
 Silva, M.M., see M.J. Smith 60 (1993) 73  
 Silva, P.R., see A.L. de Oliveira 60 (1993) 99  
 Skaarup, S., see K. West 60 (1993) 153  
 Skotheim, T.A., see L. Boguslavsky 60 (1993) 189  
 Smith, M., see G. Petersen 60 (1993) 55  
 Smith, M.J., C.J. Silva and M.M. Silva, The study of a lanthanum triflate based polymer electrolyte using electrochemical and thermal techniques 60 (1993) 73  
 Springer, T.E., see T.A. Zawodzinski Jr. 60 (1993) 199  
 Stevens, J.R., see I. Albinsson 60 (1993) 63  
 Stevens, J.R., see T. Mani 60 (1993) 113  
 Stys, S., see J. Przyłuski 60 (1993) 141  
 Sumiyama, K., see E. Ivanov 60 (1993) 299  
 Suzuki, K., see E. Ivanov 60 (1993) 299
- Takebe, Y., K. Hoshi and Y. Shiota, Ionic conductivities of hybrid films composed of comb polymers containing esters as pendant groups and lithium trifluoromethane sulfonate 60 (1993) 125

- Tamaki, S., see M. Saito 60 (1993) 237
- Tanaka, R., T. Fujita, H. Nishibayashi and S. Saito, Ionic conduction in poly(ethylenimine)- and poly(N-methylethylenimine)-lithium salt systems 60 (1993) 119
- Taylor, P., see P.G. Komorowski 60 (1993) 335
- Torell, L.M., see S. Schantz 60 (1993) 47
- Torell, L.M., see G. Petersen 60 (1993) 55
- Uribe, F., see T.A. Zawodzinski Jr. 60 (1993) 199
- Vincent, C.A., see J. Shi 60 (1993) 11
- Visco, S.J., M. Liu, M.M. Doeff, Y.P. Ma, C. Lampert and L.C. de Jonghe, Polyorganodisulfide electrodes for solid-state batteries and electrochromic devices 60 (1993) 175
- Voss, J.P., S.V. Batty, J.P. Patel and P.V. Wright, Conductivities of poly(ethylene oxide)-alkali salts with aromatic and heterocyclic anions 60 (1993) 93
- Wang, J.C., see J.R. Macdonald 60 (1993) 319
- West, K., M.A. Careem and S. Skaarup, An impedance study of the doping of polypyrrole in LiClO<sub>4</sub>/PC 60 (1993) 153
- Wheat, T.A., see P.G. Komorowski 60 (1993) 335
- Wheat, T.A., see P.G. Komorowski 60 (1993) 343
- Wieczorek, W., see M. Siekierski 60 (1993) 67
- Wieczorek, W., see J. Przyluski 60 (1993) 141
- Wilkens, B.J., see G.G. Amatucci 60 (1993) 357
- Wintersgill, M.C., see M.G. McLin 60 (1993) 137
- Wright, P.V., see J.P. Voss 60 (1993) 93
- Xie, L. and G.C. Farrington, Application of molecular modeling to the study of polymer electrolytes 60 (1993) 19
- Xu, G., see Y.S. Pak 60 (1993) 347
- Xu, Z.S., see Y. Okamoto 60 (1993) 131
- Yamauchi, H., see E. Ivanov 60 (1993) 299
- Yang, L., see X. Qiu 60 (1993) 351
- Zawodzinski Jr., T.A., T.E. Springer, F. Uribe and S. Gottesfeld, Characterization of polymer electrolytes for fuel cell applications 60 (1993) 199
- Znášik, P., I. Hinduliaková, J. Majling and F. Hanic, Ionic conductivity of crystalline and glassy Mg<sub>4.5</sub>Na<sub>7</sub>(P<sub>2</sub>O<sub>7</sub>)<sub>4</sub> 60 (1993) 313



## Subject Index to Volume 60

- Activation volume, 137  
AgBr-CuBr system, 237  
Alloys, 299  
Amorphous, 125  
 $\beta''$ -alumina, 343  
Bending beam method, 161  
Biosensor, 189  
Blends, 113  
Bulk modulus, 43  
Carbon anode, 351  
Cation mobility, 11  
Cerium dioxide, 279  
Charge distribution, 19  
Chemical analysis, 343  
Cholesterol sensor, 189  
Comb polymer, 125  
Complexes, 87  
Complex impedance, 313  
Computer simulation, 19  
Conducting polymers, 153, 167  
Conductivity, 63, 67, 93, 105, 141  
Copolymer, 3  
Copper iodide complexes, 79  
Crystal structure, 313  
De Gennes, 11  
Diffusion, 153  
    mechanism, 233  
Diffusion coefficient, 11, 167, 305  
Dilute solutions, 47  
Dissolved ions, 47  
Donnan effect, 149  
Electrical conductivity, 137, 237  
Electroactive polymers, 161  
Electrochromic devices, 175  
Electrodeposition, 79  
Electrodissolution, 79  
Electron-beam  
    evaporation, 357  
    lithography, 275  
Electron diffraction, 227  
Enzyme electrodes, 189  
EPR, 223  
Ester, 125  
Film, 227  
FTIR, 31, 37  
Fuel cell, 141, 199  
Glass, 313  
Glucose sensor, 189  
High pressure, 137  
High temperature polymer electrolyte, 131  
Humidity effects, 335  
Impedance spectroscopy, 67, 141, 153, 319  
Interfacial resistance, 141  
Ion exchange, 167, 305, 343  
Ionic association, 55, 63  
Ionic conductivity, 63, 67, 119, 125, 313  
    lithium, 131, 357  
    oxygen, 279  
    proton, 335  
    sodium, 131  
Ion-ion interaction, 19, 43  
Ion pairs, 47  
Ion-polymer interaction, 19  
Ion transport, 161, 237  
Lithium battery, 227, 351, 357  
Lithium conductor, 131  
Lithium perchlorate conductivity, 99  
Lithium salt, 119  
Lithium scandium phosphate, 357  
Lithium sulfate, 233  
Lithium triflate, 37, 113  
Manganous oxide, 227  
Mechanical synthesis, 299  
Membrane transport, 199  
Microwave drying, 105  
Morphology, 113  
Multivalency, 55  
Multivalent cation-based system, 73  
NAFION, 137, 199, 347  
NASICON, 335  
Networks, 3  
Neurotransmitter sensor, 189  
New salts, 87  
NMR, 11  
     $T_1$  measurements, 137

- Optical absorption, 223  
Organo-alkali complexes, 93
- Paddle wheel, 233  
Paramagnet, 299  
PEFC, 199  
Percolation, 233  
Permittivity, 63  
Polyaniline, 149  
Polycondensate, 3  
Polyether, 3  
Poly(ethylene glycol-400) distereate, 99  
Poly(ethyleneimine), 119  
Poly(ethylene oxide) (PEO), 31, 93, 175  
Polymer, 347  
Polymer blends, 141  
Polymer electrolyte, 3, 11, 19, 43, 55, 63, 67, 73, 79, 87, 105, 113, 119, 141, 149, 175, 199  
Polymeric ionic conductor, 99  
Polymeric mediators, 189  
Poly(methyl methacrylate), 113  
Poly(N-methylethylenimine), 119  
Polyorganodisulfide electrodes, 175  
Poly(oxyethylene) (POE), 87  
Poly(propylene glycol) (PPG), 63, 113  
Poly(propylene oxide) (PPO), 37, 47  
Polypyrrole, 153, 161  
Pressure dependence, 43  
Probe beam deflection, 167
- Protonation, 149  
Pseudo-equilibrium phase diagram, 73  
Pyrolytic carbon, 351
- Raman scattering, 43, 47, 55  
Raman spectroscopy, 79  
Rare-earth triflate, 31  
Response  
  conductive, 319  
  dielectric, 319  
Rouse-Zimm, 11
- Sodium conductor, 131  
Solid electrolytes, 275
- Thermodynamics, 279  
Tin oxide, 305  
Transference number, 347
- Universal power law, 67
- Volume changes in conducting polymers, 161
- XUS polymer, 347
- Yttria-stabilized zirconia (YSZ), 223



